

CORONA

VISUAL CORONA PHOTOGRAPHS - 1840

CONN. LT. & PWR

| Samp No. | Test Voltage | 620kc | | | 800kc | | | 1000kc | | | 1250kc | | | P |
|----------|--------------|--------|-------|-----------|-------|-------|------|--------|-------|-------|--------|------|-------|-----|
| | | Ferris | std. | S/F Ratio | F | S | S/F | F | S | S/F | F | S | S/F | |
| 1 | 10 | 3000 | 4000 | 1.333 | 3000 | 3000 | 1.00 | 4200 | 3800 | 0.905 | 1600 | 1800 | 1.124 | 27 |
| 2 | 10 | 2600 | 3500 | 1.345 | 2000 | 2500 | 1.25 | 2900 | 3000 | 1.033 | 1300 | 1400 | 1.077 | 98 |
| D 1 | 10 | 10 | 16 | 1.60 | 6 | 4 | 0.67 | 2 | 4 | 2.00 | 2 | 3.5 | 1.75 | 1 |
| D 2 | 10 | 3 | 9 | 3.00 | 8 | 10 | 1.25 | 5 | 5 | 1.00 | 2.5 | 3.5 | 1.40 | 1 |
| 1 | 30 | 11000 | 22000 | 2.00 | 12500 | 10000 | 0.80 | 14000 | 20000 | 1.43 | 7000 | 8500 | 1.213 | 900 |
| 2 | 30 | 10000 | 14000 | 1.40 | 8000 | 16000 | 2.00 | 10000 | 14000 | 1.40 | 7000 | 8500 | 1.213 | 75 |
| NP 1 | 30 | 10 | 25 | 2.50 | 6 | 16 | 2.67 | 10 | 20 | 2.00 | 8 | 8 | 1.00 | |
| VP 2 | 30 | 10 | 30 | 3.00 | 16 | 50 | 3.13 | 12 | 25 | 2.08 | 2.5 | 4 | 1.60 | |

Carone

Car

7

7

7

7

10

10

10

10

0 kc

560 kc

| S | S/F | F | S | S/F |
|------|-------|------|------|------|
| 400 | 0.610 | 6 | 25 | 4.17 |
| 0 | 0.750 | 10 | 35 | 3.50 |
| 5 | 2.50 | 7 | 14 | 1.57 |
| 5 | 2.50 | 3 | 12 | 4.00 |
| 5 | 2.50 | 1200 | 4000 | 3.33 |
| 0.67 | | 50 | 300 | 6.00 |
| 2.80 | | 5 | 12 | 2.40 |
| 1.20 | | 4 | 10 | 2.50 |

| | | | | | |
|------|----------------|----------------|-----------------|-----------------|-----------------|
| | 1.33 | 1.00 | 0.905 | 1.124 | 0.610 |
| | 1.35 | 1.25 | 1.033 | 1.077 | 0.750 |
| | 1.60 | 0.67 | 2.000 | 1.750 | 2.500 |
| | 3.00 | 1.25 | 1.000 | 1.400 | 2.500 |
| | 2.00 | 0.80 | 1.430 | 1.213 | 0.670 |
| | 1.40 | 2.00 | 1.400 | 1.213 | 0.867 |
| | 2.50 | 2.67 | 2.000 | 1.000 | 2.800 |
| | 3.00 | 3.13 | 2.080 | 1.600 | 1.200 |
| | <u>8</u> 16.18 | <u>8</u> 12.77 | <u>8</u> 11.848 | <u>8</u> 10.377 | <u>8</u> 11.897 |
| ave. | 2.02 | 1.59 | 1.481 | 1.297 | 1.48 |
| max. | 3.00 | 3.13 | 2.080 | 1.750 | 2.800 |
| min. | 1.33 | 0.67 | 0.905 | 1.000 | 0.610 |

Plan

NP

$$9.89 - 6 \cdot 1.65$$

$$8.39 - 6 \cdot 1.40$$

$$7.80 - 5 \cdot 1.56$$

$$7.17 - 6 \cdot 1.19$$

$$8.71 - 6 \cdot 1.45$$

$$6.74 - 6 \cdot 1.12$$

$$7.19 - 6 \cdot 1.20$$

$$7.27 - 6 \cdot 1.21$$

$$4.60 - 6 \cdot 0.77$$

$$3.60 - 4 \cdot 0.90$$

$$71.36 - 57$$

$$14.58 - 6 \cdot 2.43$$

$$9.09 - 4 \cdot 2.27$$

$$13.14 - 6 \cdot 2.19$$

$$8.61 - 5 \cdot 1.72$$

$$12.19 - 6 \cdot 2.03$$

$$8.21 - 6 \cdot 1.54$$

$$9.42 - 6 \cdot 1.57$$

$$13.18 - 6 \cdot 2.19$$

$$12.68 - 6 \cdot 2.11$$

$$9.25 - 4 \cdot 2.31$$

$$110.35 - 55$$

2.35

1.96

1.79

1.88

2.21

$$\begin{array}{r} 1.25 \\ 57 \overline{) 71.36} \\ \underline{57} \\ 143 \\ \underline{114} \\ 296 \\ \underline{285} \\ 11 \end{array}$$

$$\begin{array}{r} 2.01 \\ 55 \overline{) 110.35} \\ \underline{110} \\ 35 \end{array}$$

$$\begin{array}{r} 1.91 \\ 22 \overline{) 41.95} \\ \underline{22} \\ 199 \\ \underline{198} \\ 15 \end{array}$$

$$\begin{array}{r} 1.67 \\ 22 \overline{) 36.72} \\ \underline{22} \\ 147 \\ \underline{132} \\ 152 \end{array}$$

$$\begin{array}{r} 1.49 \\ 24 \overline{) 35.85} \\ \underline{24} \\ 118 \\ \underline{96} \\ 225 \\ \underline{216} \\ 9 \end{array}$$

$$\begin{array}{r} 1.54 \\ 24 \overline{) 37.06} \\ \underline{24} \\ 130 \\ \underline{120} \\ 106 \\ \underline{96} \\ 106 \end{array}$$

$$\begin{array}{r} 1.51 \\ 2.0 \overline{) 3.013} \\ \underline{2.0} \\ 1013 \end{array}$$

| Ratio | Stoddard Ferris | Total | NP | Plain |
|-------------|--------------------|-------|----|-------|
| 0.50 - 0.75 | 1 | 6 | 2 | 4 |
| 0.76 - 1.00 | | 15 | 5 | 10 |
| 1.01 - 1.25 | | 20 | 3 | 17 |
| 1.26 - 1.50 | | 22 | 6 | 16 |
| 1.51 - 1.75 | | 13 | 8 | 5 |
| 1.76 - 2.00 | | 15 | 10 | 5 |
| 2.01 - 2.25 | | 3 | 3 | 0 |
| 2.26 - 2.50 | | 8 | 8 | 0 |
| 2.51 - 2.75 | | 2 | 2 | 0 |
| 2.76 - 3.00 | | 4 | 4 | 0 |
| 3.01 - 3.25 | 1 | 1 | 1 | 0 |
| 3.26 - 3.50 | | 0 | 0 | 0 |
| 3.51 - 3.75 | 1 | 1 | 1 | 0 |
| 3.75 - 4.00 | 1 | 1 | 1 | 0 |
| 4.01 - 4.25 | | 0 | 0 | 0 |
| 4.26 - 4.50 | | 0 | 0 | 0 |
| 4.51 - 4.75 | | 0 | 0 | 0 |
| 4.76 - 5.00 | 1 | 1 | 1 | 0 |
| | | 112 | 55 | 57 |

| Ratio | Peak | Quasi Peak | Plain and NP | NP | Plain | 2.84 | 10.00 | 1.28 | 104 |
|-------|------|------------|--------------|----|-------|------|-------|------|-----|
| | | | | | | 3.13 | 10.00 | 1.56 | 53 |
| | | | | | | 2.34 | 3.28 | 1.28 | 51 |

Plasma Ionization only

ratio

0.75

1.00

1.25

1.40

1.60

400

600

800

1000

1200

1400

1600

x

x

x

x

x

frequency

0.5

0.75

1.00

1.25

1.50

1.75

2.00

2.25

2.50

2.75

3.00

5

a

a

freq

rat

2

| | kc | | 620 | 800 | 1000 | 1250 | 1550 | Total | NP | Plain |
|-------------|-----------------|---|-----------------|-----|--------------------|------|----------------------|-------|----|-------|
| 0.50 - 0.75 | | 0 | 11 | 2 | | | 1111 | 4 | 6 | 2 4 |
| 0.75 - 1.00 | | 0 | 111 | 3 | 1111 | 4 | 1 1111 | 7 | 15 | 5 10 |
| 1.00 - 1.25 | 1 | 1 | 1111 | 4 | 1111 | 4 | 1111 1111 | 10 | 21 | 4 17 |
| 1.25 - 1.50 | 1111 | 6 | 111 | 3 | 1111 11 | 7 | 1111 1 | 6 | 22 | 6 16 |
| 1.50 - 1.75 | 1111 | 4 | 11 | 2 | 111 | 3 | 111 | 3 | 13 | 8 5 |
| 1.75 - 2.00 | 1111 | 4 | 1111 | 5 | 1111 | 4 | 11 | 2 | 15 | 10 5 |
| 2.00 - 2.25 | 1 | 1 | | 0 | 1 | 1 | 1 | 0 | 3 | 3 0 |
| 2.25 - 2.50 | 111 | 3 | 1 | 1 | | 0 | 0 1111 | 4 | 8 | 8 0 |
| 2.50 - 2.75 | 1 | 1 | 1 | 1 | | 0 | 0 | 0 | 2 | 2 0 |
| 2.75 - 3.00 | 11 | 2 | | 0 | 1 | 1 | 0 1 | 1 | 4 | 4 0 |
| 3.00 - 3.25 | | | 1 | 1 | | 0 | 0 | 0 | 1 | 1 0 |
| | | | | | | 5.00 | 1 4.00 | 1 | 2 | 2 0 |
| | | | | | | | | 112 | 55 | 57 |

Grand are. 1.62

are NP 2.01

are Plain 1.25

41.95

36.72

35.85

37.06

30.13

Plain

freq kc. 620 800 1000 1250 1550
ratio 1.52 1.38 1.29 1.20 0.84

112 | 181.71 | 1.62

112
697
672
251

Peak readings

| ratios | all | NP | Plain |
|--------|-------|-------|-------|
| max | 10.00 | 10.00 | 3.28 |
| min | 1.28 | 1.56 | 1.28 |
| ave | 2.84 | 3.13 | 2.34 |

| Instr. Cat. No. | Test Voltage | Frequency kc. | Ferris uV | Stoddart uV | Ratio $\frac{\text{Stoddart}}{\text{Ferris}}$ | Stoddart Peak uV. | Ratio $\frac{\text{Peak Stoddart}}{\text{Peak F.P.}}$ |
|--------------------|-----------------|------------------|--------------|----------------|--|----------------------|--|
| 1044 | 30 | 620 | 11000 | 22000 | 2.00 | 54000 | 2.45 |
| | 34.5 | | 16000 | 30000 | 1.88 | 58000 | 1.93 |
| | 28 | | 10000 | 16000 | 1.60 | 35000 | 2.19 |
| | 30 | | 10000 | 14000 | 1.40 | 35000 | 2.50 |
| | 31 | | 11000 | 16000 | 1.45 | 40000 | 2.50 |
| | 37.5 | | 16000 | 25000 | 1.56 | 50000 | 2.00 |
| 1044NP | 30 | | 10 | 25 | 2.50 ✓ | 75 | 3.00 |
| | 33 | | 30 | 70 | 2.33 ✓ | 170 | 2.43 |
| | 42 | | 250 | 500 | 2.00 | 1000 | 2.00 |
| | 30 | | 10 | 30 | 3.00 ✓ | 90 | 3.00 |
| | 38.5 | | 80 | 200 | 2.50 ✓ | 510 | 2.55 |
| | 42.5 | | 200 | 450 | 2.25 ✓ | 900 | 2.00 |
| 77 | 10 | | 3000 | 4000 | 1.33 | 7000 | 1.75 |
| | 13.5 | | 4400 | 5500 | 1.25 | 12000 | 2.18 |
| | 15 | | 5500 | 8000 | 1.45 | 21000 | 2.63 |
| | 10 | | 2600 | 3500 | 1.35 | 7000 | 2.00 |
| | 14 | | 4000 | 5500 | 1.37 | 18000 | 3.28 |
| | 15.5 | | 5500 | 9000 | 1.64 | 25000 | 2.78 |
| 77NP | 10 | | 10 | 16 | 1.60 | 56 | 3.50 |
| | 24.5 | | 2200 | 4000 | 1.82 | 7500 | 1.87 |
| | 10 | | 3 | 9 | 3.0 ✓ | 50 | 5.56 ✓ |
| | 34 | | 6000 | 16000 | 2.67 ✓ | 65000 | 4.06 ✓ |

41.95

are 1.91

ave. 2.64
max 5.56
min 1.75

| | | | | | | | |
|--------|------|-----|-------|-------|-------------------|-------|-------------------|
| 1044 | 30 | 800 | 12500 | 10000 | 0.80 ^x | 25000 | 2.50 |
| | 31 | | 16000 | 16000 | 1.00 | 33000 | 2.06 |
| | 30 | | 12500 | 25000 | 2.00 | 32000 | 1.28 |
| | 25.5 | | 8000 | 16000 | 2.00 | 50000 | 3.12 |
| | 35 | | 16000 | 32000 | 2.00 | 58000 | 1.81 |
| 1044NP | 30 | | 6 | 16 | 2.67 [✓] | 45 | 2.81 |
| | 43 | | 125 | 200 | 1.60 | 600 | 3.00 |
| | 46 | | 200 | 400 | 2.00 | 700 | 1.75 |
| | 30 | | 16 | 50 | 3.12 [✓] | 310 | 6.20 [✓] |
| | 42 | | 100 | 200 | 2.00 | 550 | 2.75 |
| | 46 | | 200 | 350 | 1.75 | 900 | 2.57 |
| 77 | 10 | | 3000 | 3000 | 1.00 | 6000 | 2.00 |
| | 12.2 | | 4000 | 5500 | 1.37 | 7500 | 1.36 |
| | 16 | | 5500 | 6000 | 1.09 | 10000 | 1.67 |
| | 10 | | 2000 | 2500 | 1.25 | 5500 | 2.20 |
| | 14.5 | | 4000 | 5500 | 1.37 | 9000 | 1.64 |
| | 17 | | 5500 | 6000 | 1.09 | 11000 | 1.83 |
| 77NP | 10 | | 6 | 4 | 0.67 ^x | 23 | 5.75 [✓] |
| | 19.6 | | 7 | 5 | 0.72 ^x | — | — |
| | 10 | | 8 | 10 | 1.25 | 28 | 2.80 |
| | 30 | | 14 | 50 | 3.57 [✓] | 300 | 6.00 [✓] |
| | 31 | | 50 | 120 | 2.40 [✓] | 600 | 5.00 [✓] |

36.72

are 1.67

are 2.86
max 6.20
min 1.28

| | | | | | | | |
|--------|------|------|-------|-------|-------------------|-------|-------------------|
| 1044 | 30 | 1000 | 14000 | 20000 | 1.43 | — | |
| | 27.5 | | 10000 | 16000 | 1.60 | — | |
| | 33.5 | | 16000 | 23000 | 1.44 | — | |
| | 30 | | 10000 | 14000 | 1.40 | — | |
| | 31 | | 12500 | 16000 | 1.28 | — | |
| | 34.5 | | 16000 | 25000 | 1.56 | — | |
| 1044NP | 30 | | 10 | 20 | 2.00 | 80 | 4.00 |
| | 38 | | 100 | 200 | 2.00 | 400 | 2.00 |
| | 40.7 | | 200 | 300 | 1.50 | 810 | 2.70 ^x |
| | 30 | | 12 | 25 | 2.08 | 110 | 4.40 |
| | 38 | | 70 | 200 | 2.86 | 430 | 2.15 |
| | 40 | | 200 | 350 | 1.75 | 850 | 2.42 |
| 77 | 10 | | 4200 | 3800 | 0.91 ^x | 7000 | 1.84 |
| | 13.5 | | 5500 | 6000 | 1.09 | 13000 | 2.17 |
| | 13.0 | | 4500 | 5500 | 1.22 | 12500 | 2.27 |
| | 10 | | 2900 | 3000 | 1.03 | 7000 | 2.33 |
| | 14 | | 5500 | 7000 | 1.27 | 20000 | 2.86 |
| | 13 | | 4500 | 5500 | 1.22 | 17000 | 3.09 |
| 77NP | 10 | | 2 | 4 | 2.00 | 9 | 2.25 |
| | 23 | | 3000 | 4500 | 1.50 | 8000 | 1.78 |
| | 20.5 | | 6 | 5 | 0.83 ^x | 10 | 2.00 |
| | 10 | | 5 | 5 | 1.00 | 45 | 9.00 ^x |
| | 31 | | 8.5 | 7.5 | 0.88 ^x | 17 | 2.27 |
| | 32 | | 5000 | 10000 | 2.00 | 32000 | 3.20 |

35.85
ave 1.49

ave. 2.93
max 9.00
min 1.78

| | | | | | | | |
|--------|------|------|-------|-------|--------|-------|-------------------|
| 1044 | 30 | 1250 | 7000 | 8500 | 1.21 | 21000 | 2.47 |
| | 40.5 | | 13000 | 16000 | 1.23 | 36000 | 2.25 |
| | 45.5 | | 16000 | 19000 | 1.19 | 50000 | 2.63 |
| | 30 | | 7000 | 8500 | 1.21 | 20000 | 2.35 |
| | 39.5 | | 13000 | 16000 | 1.23 | 35000 | 2.19 |
| | 47 | | 16000 | 18000 | 1.12 | 50000 | 2.78 |
| 1044NP | 30 | | 8 | 8 | 1.00 | 35 | 4.38 ^x |
| | 41 | | 100 | 200 | 2.00 | 550 | 2.75 |
| | 42.5 | | 200 | 300 | 1.50 | 900 | 3.00 |
| | 30 | | 2.5 | 4 | 1.60 | 40 | 10.00 |
| | 42 | | 110 | 200 | 1.82 | 500 | 2.50 |
| | 44 | | 200 | 300 | 1.50 | 750 | 2.50 |
| 77 | 10 | | 1600 | 1800 | 1.12 | 3400 | 1.89 |
| | 16 | | 4200 | 5500 | 1.31 | 15000 | 2.73 |
| | 17.5 | | 5500 | 7000 | 1.27 | 16000 | 2.29 |
| | 10 | | 1300 | 1400 | 1.08 | 3700 | 2.64 |
| | 17 | | 4500 | 5500 | 1.22 | 17000 | 3.09 |
| | 18 | | 5500 | 7000 | 1.27 | 20000 | 2.86 |
| 77NP | 10 | | 2.5 | 3.5 | 1.40 | 9 | 2.57 |
| | 32 | | 400 | 2000 | 5.00 ✓ | 18000 | 9.00 ✓ |
| | 31 | | 80 | 180 | 2.25 ✓ | 2800 | 1.56 |
| | 10 | | 2 | 3.5 | 1.75 | 12 | 3.43 |
| | 22 | | 3.5 | 4 | 1.14 | — | — |
| | 22.5 | | 1100 | 1800 | 1.64 | 4500 | 2.50 |

37.66

arc 1.54

arc 3.23
max 10.00
min 1.56

| | | | | | | | |
|--------|------|------|-------|-------|-------------------|-------|------|
| 1044 | 30 | 1550 | 9000 | 6000 | 0.67 ^x | 16000 | 2.67 |
| | 38 | | 16000 | 12000 | 0.75 ^x | 28000 | 2.33 |
| | 47 | | 20000 | 16000 | 0.80 ^x | 32000 | 2.00 |
| | 30 | | 7500 | 6500 | 0.87 ^x | 16000 | 2.46 |
| | 45 | | 16000 | 12000 | 0.75 ^x | 30000 | 2.50 |
| | 55 | | 21000 | 16000 | 0.76 ^x | 35000 | 2.19 |
| 1044NP | 30 | | 5 | 14 | 2.80 [✓] | 30 | 2.14 |
| | 43 | | 170 | 200 | 1.18 | 450 | 2.25 |
| | 44 | | 200 | 200 | 1.00 | 600 | 3.00 |
| | 30 | | 2.5 | 3 | 1.20 | 8 | 2.67 |
| | 44.5 | | 50 | 200 | 4.00 [✓] | 600 | 3.00 |
| | 49 | | 200 | 500 | 2.50 [✓] | 1000 | 2.00 |
| 77 | 10 | | 1300 | 1100 | 0.85 ^x | 2500 | 2.27 |
| | 19.5 | | 5500 | 5500 | 1.00 | 18000 | 3.28 |
| | 10 | | 1200 | 900 | 0.75 ^x | 2000 | 2.22 |
| | 19.5 | | 5500 | 5500 | 1.00 | 16000 | 2.91 |
| 77NP | 10 | | 1 | 2.5 | 2.50 [✓] | 45 | 1.80 |
| | 24 | | 800 | 1400 | 1.75 | 2500 | 1.79 |
| | 10 | | 1 | 2.5 | 2.50 [✓] | 8 | 3.20 |
| | 35 | | 2000 | 5000 | 2.50 [✓] | 16000 | 3.20 |

30.13

are 1.51

are
max 2.49
min 1.79

20

W. Bain

W. Bain

1357 - 6

1462 - 6

1077 - 5

1070 - 6

1456 - 6

1467 - 6

1550 - 6

1415 - 6

1068 - 4

119⁵2⁴2 51

1498 - 6

1499 - 4

1908 - 6

1955 - 4

1767 - 6

2050 - 6

1613 - 6

1906 - 5

1506 - 6

999 - 4

167⁵0⁶1 53

234
51) 119.22
102
172
153
192

3.13
53) 167.01
159
80
53
171

27'

77NP

1044

1044NP

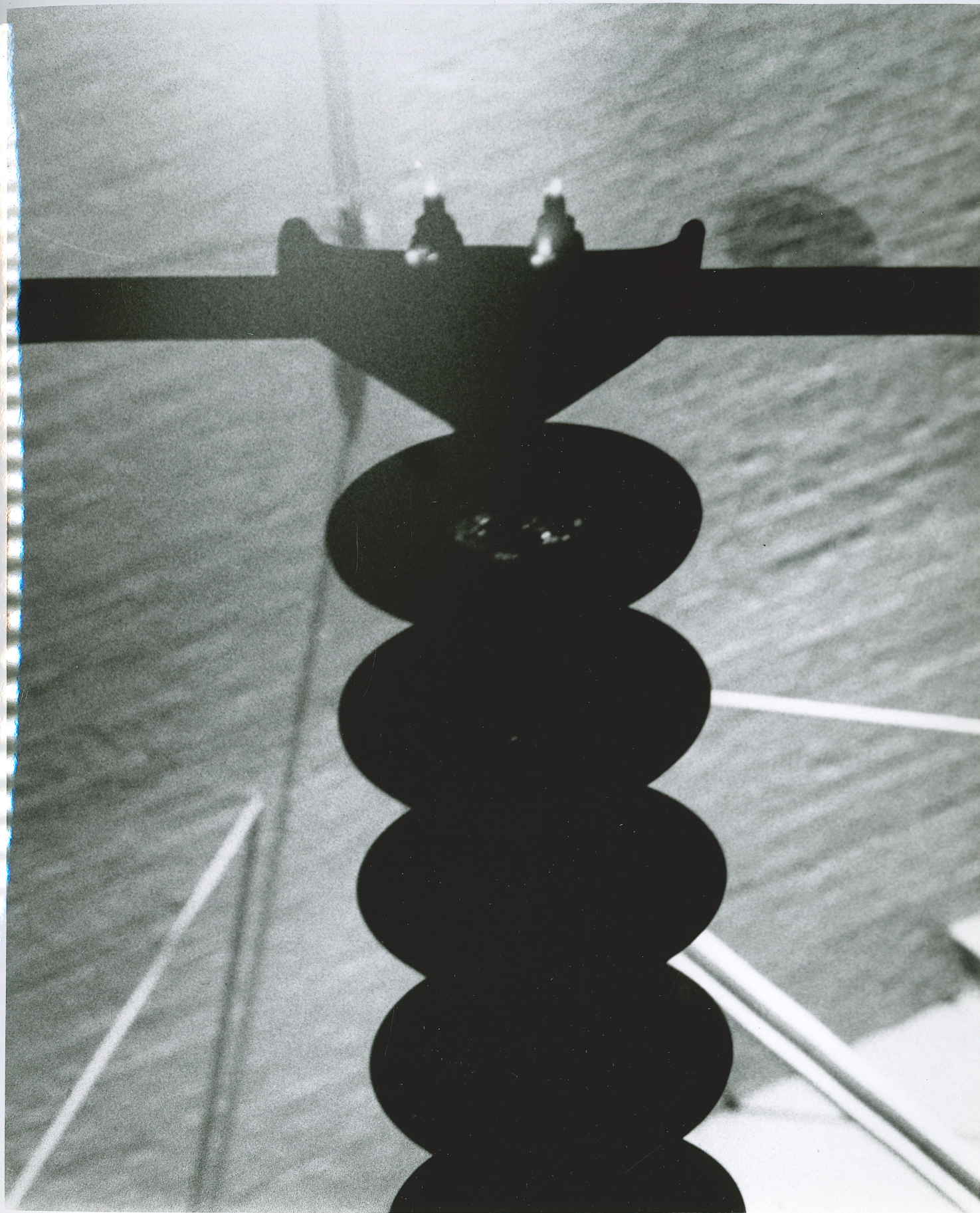
| | | | | | | | |
|-------------|-------------|-------------|--------------|--------------|--------------|---------------|---------------|
| 133 | 135 | 160 | 300 | 200 | 140 | 250 | 300 |
| 100 | 125 | 067 | 125 | 080 | 200 | 267 | 313 |
| 091 | 103 | 200 | 100 | 143 | 140 | 200 | 208 |
| 112 | 108 | 175 | 140 | 121 | 121 | 100 | 160 |
| 061 | 075 | 250 | 250 | 067 | 087 | 280 | 120 |
| <u>5497</u> | <u>5546</u> | <u>5852</u> | <u>59.15</u> | <u>56.11</u> | <u>56.88</u> | <u>510.97</u> | <u>511.01</u> |
| 0.99 | 1.09 | 1.70 | 1.83 | 1.22 | 1.38 | 2.19 | 2.20 |

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| 1.33 | 1.35 | 2.50 | 3.00 | 2.00 | 2.00 | 2.80 | 3.13 |
| 0.61 | 0.75 | 0.67 | 1.00 | 0.67 | 0.87 | 1.00 | 1.20 |

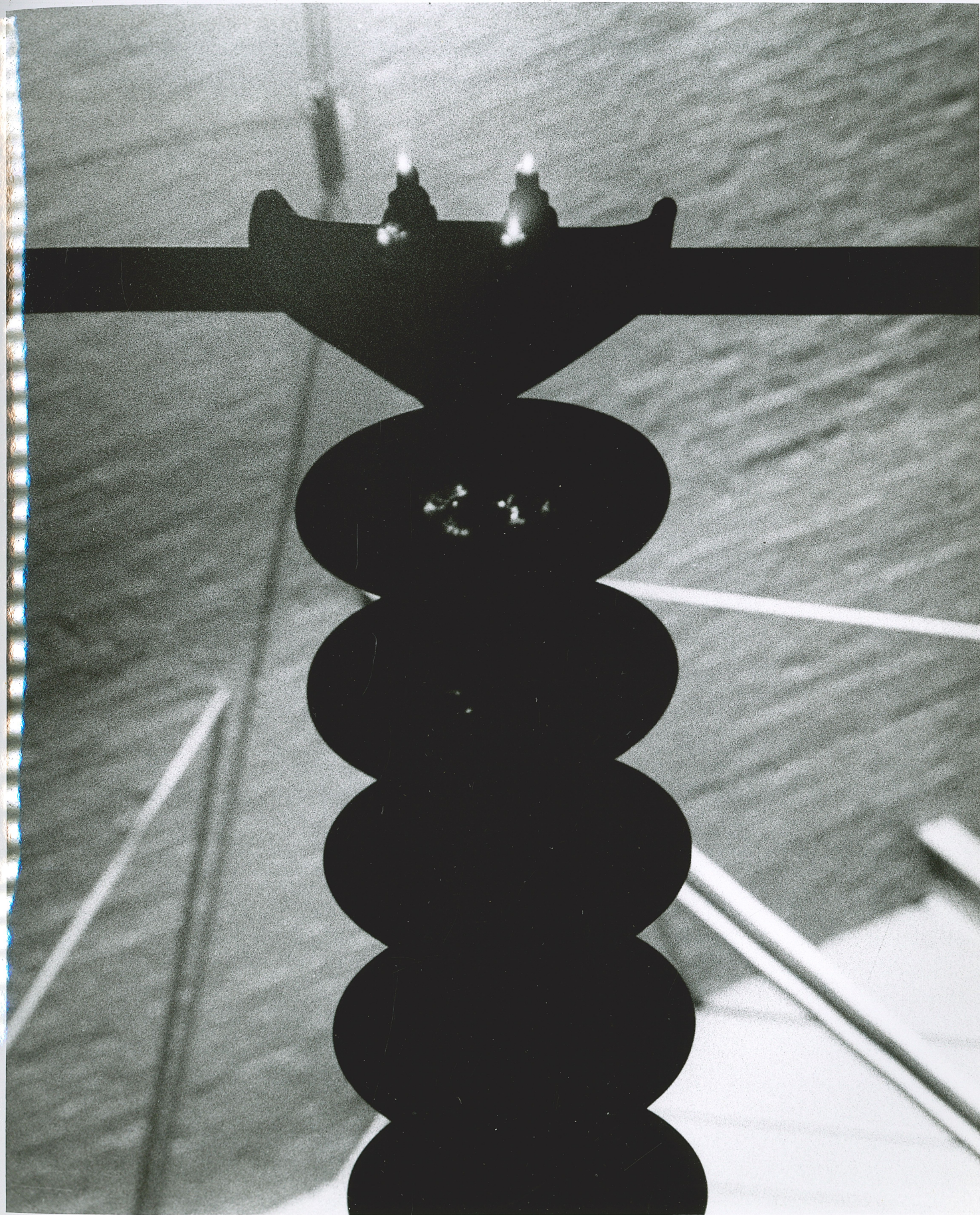
F 8.
135 mm lens (f.f.)
50 mm.

| Picture No. | Time | KV. | Setting of 18-1840 | dry |
|-------------|--------|-----------------------------|--------------------|-----|
| 1 | 2 min. | 211 | " " 18 " | " |
| 2 | 4 " | 211 | " " 18 " | " |
| 3 | 2 min | 211 | Setting of 17-1840 | " |
| 4 | 4 " | 211 | " " 17 " | " |
| 5 | 2 min | Flash light as per. - (Dry) | | 17 |
| 6 | 2 " | Wet. | | 17 |
| 7 | 2 " | " light as per. Wet | | 17 |
| 8 | 2 " | Wet | | 18 |



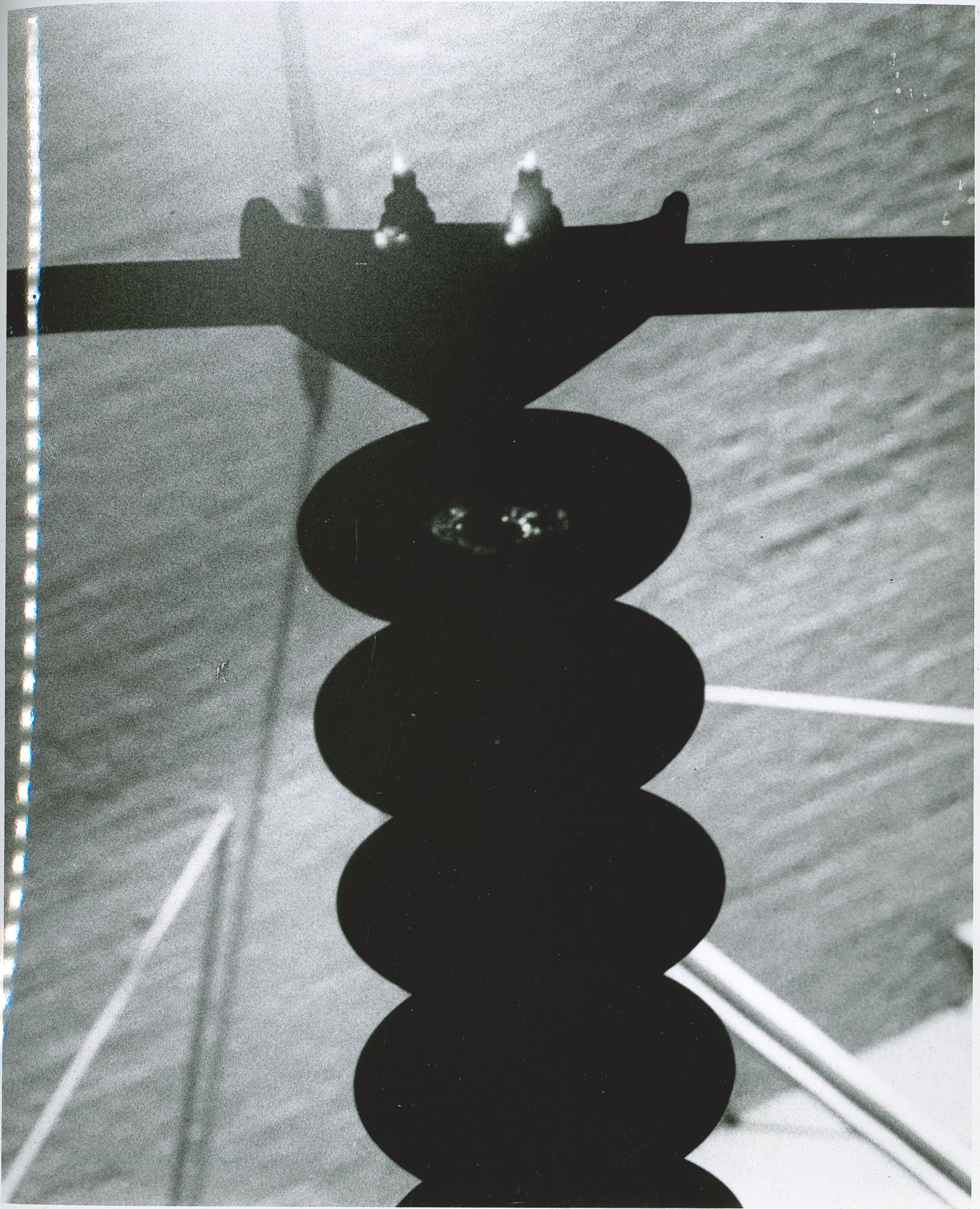


52104-3



2

E 2104-2



P

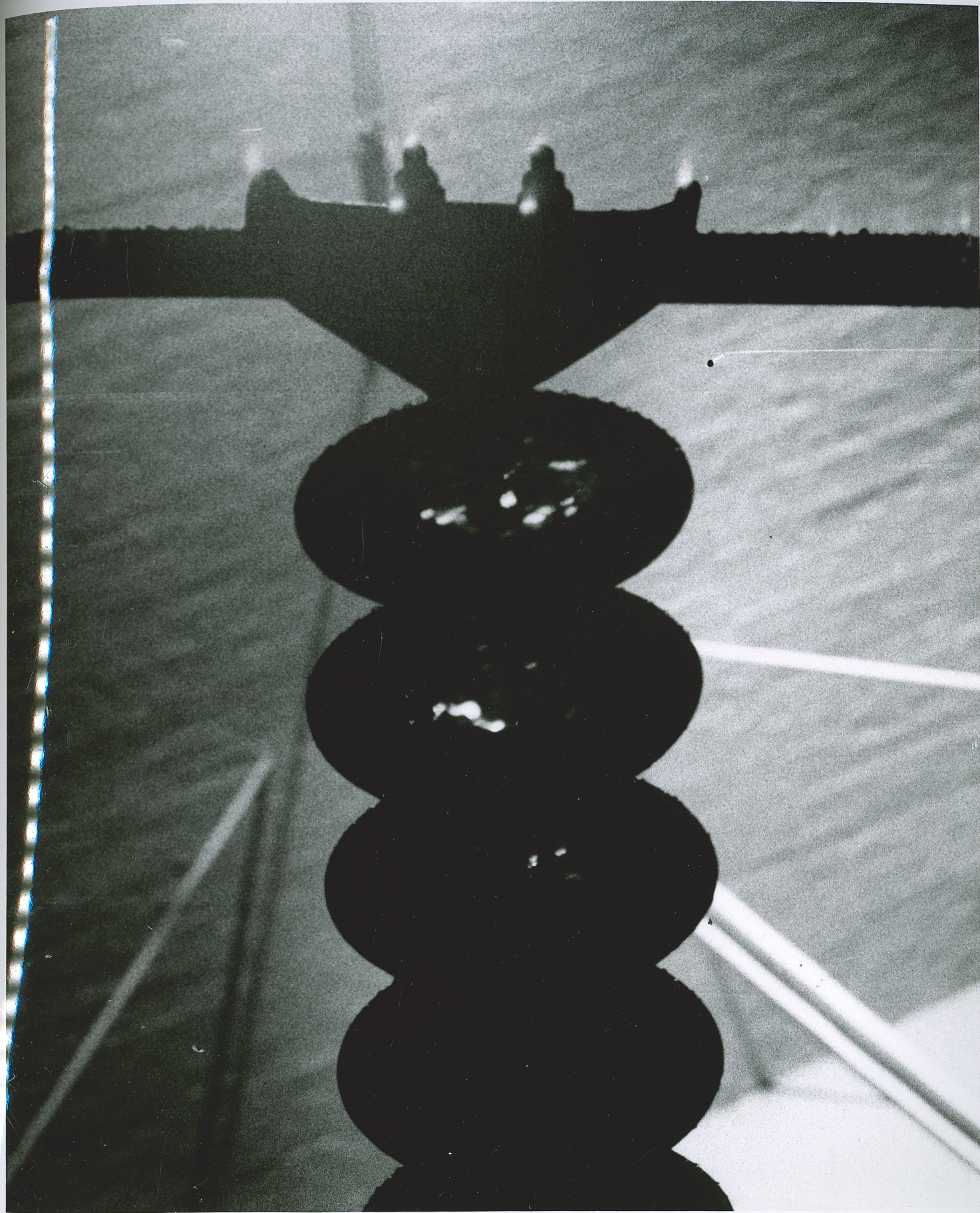
E 2104-4



ε 2104-5



5-60123

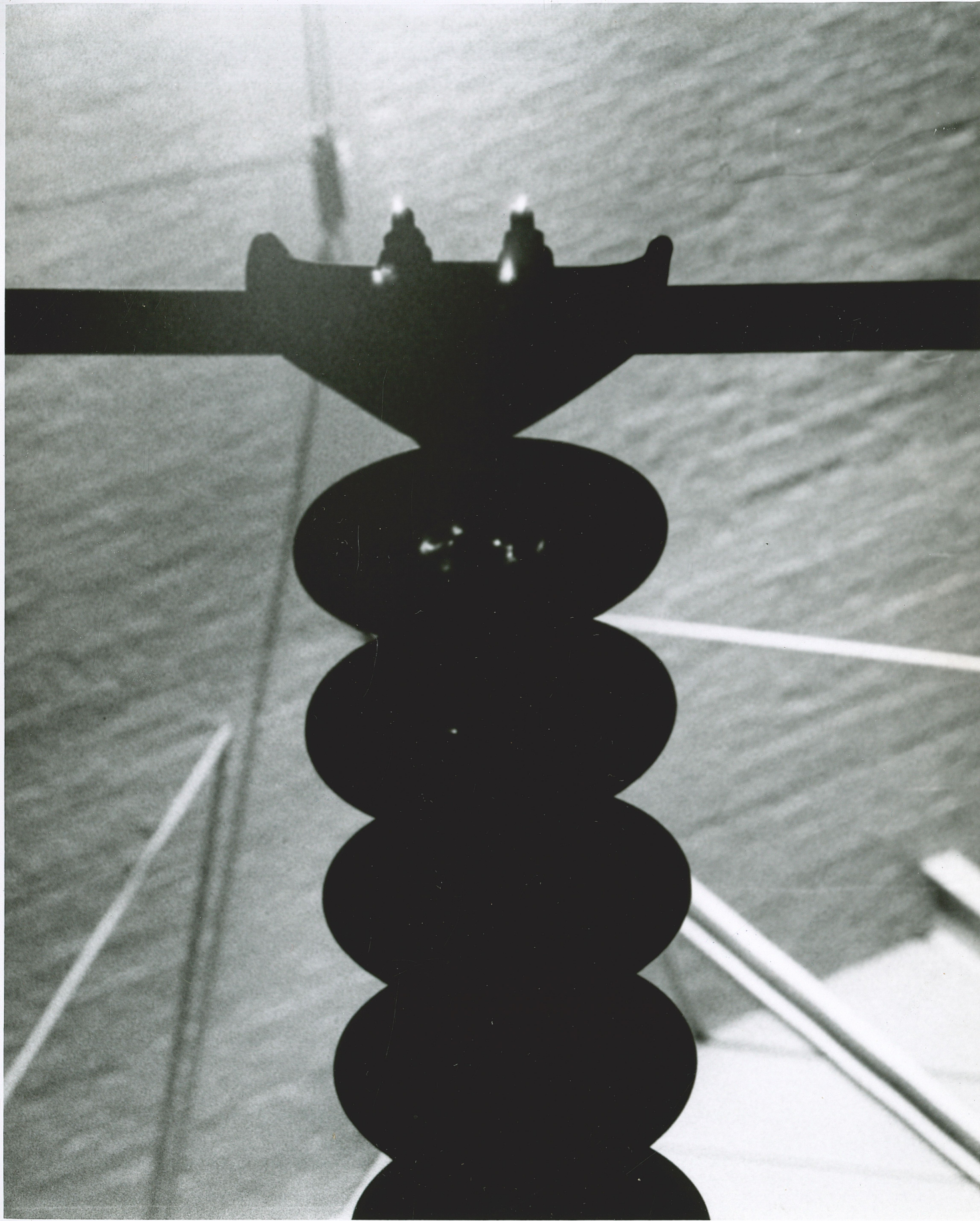


6-10123

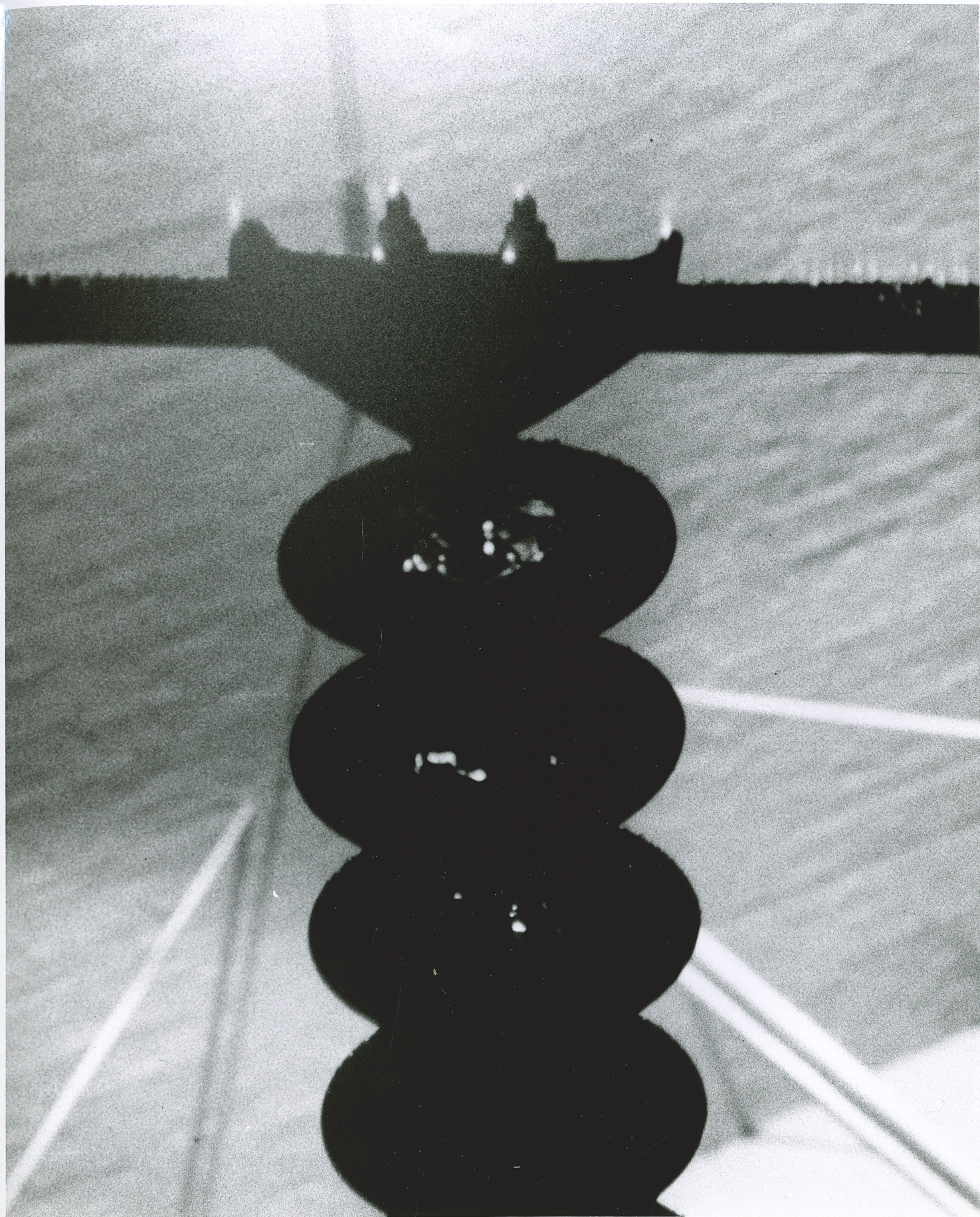


2/

9-6013



E2104-1



8

8-40123